Peoria County Environmental Corridor Study

Tom Gerend, Planning Program Manager, Tri-County Regional Planning Commission

Study Goals

- Identify environmentally significant sites within study area
- Develop land use recommendations for sustainable development at environmental corridors

Inventory Partners

Educational Institutions:
Bradley University
IL Central College
Peoria Academy of Science

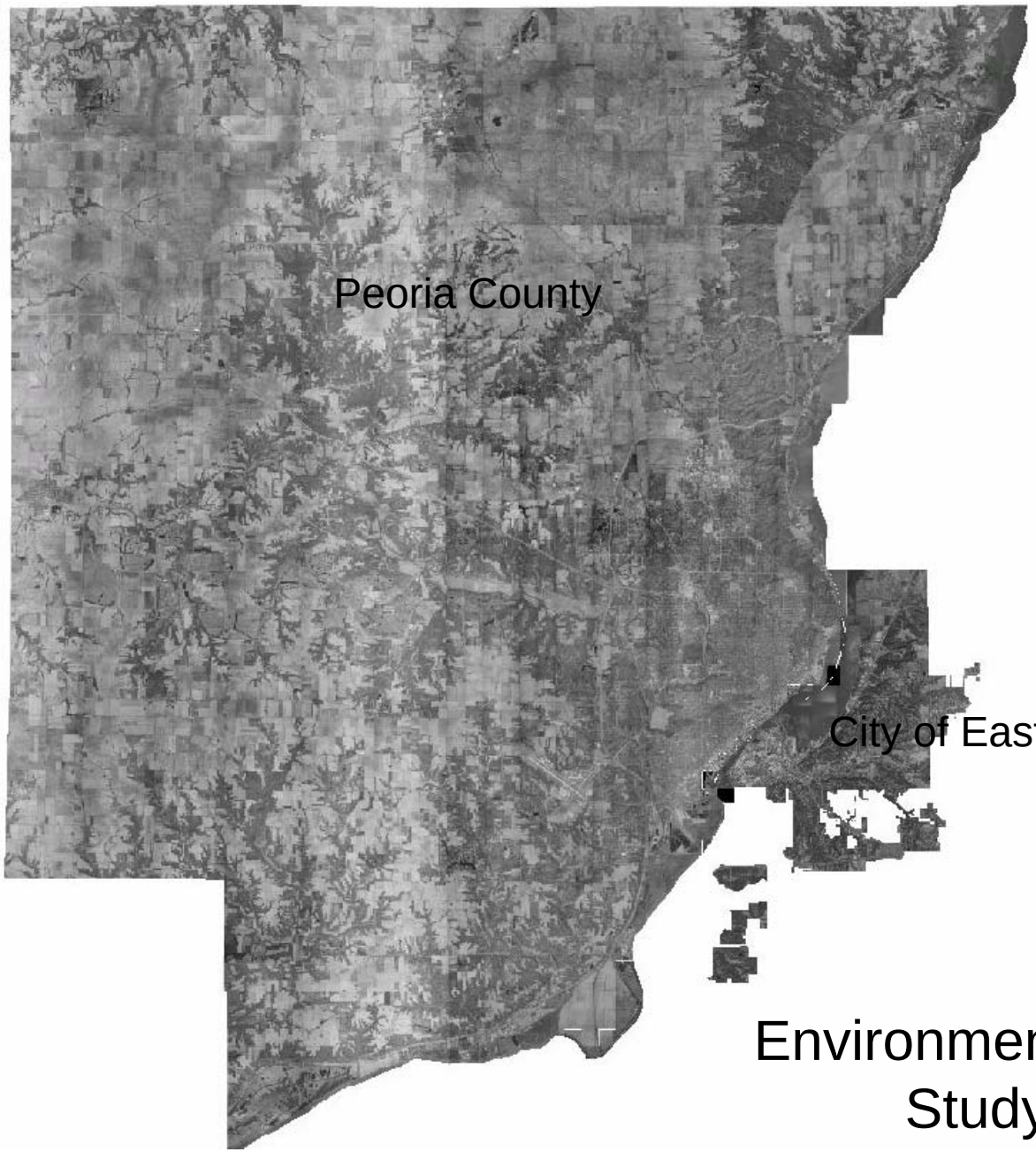
Governmental Entities:
Peoria County P&Z
City of E. Peoria
Fondulac Park District
Peoria Park District
Pekin Park District
Peoria Farm Bureau
Peoria Co. Soil & Water

Consultants:
MacTec, Inc.
University of Illinois

State Agencies:
IL Natural History Survey
IL Nature Preserves Commission
IL History Survey

Federal Agencies:
US Fish & Wildlife Service
US Dept. of Agriculture

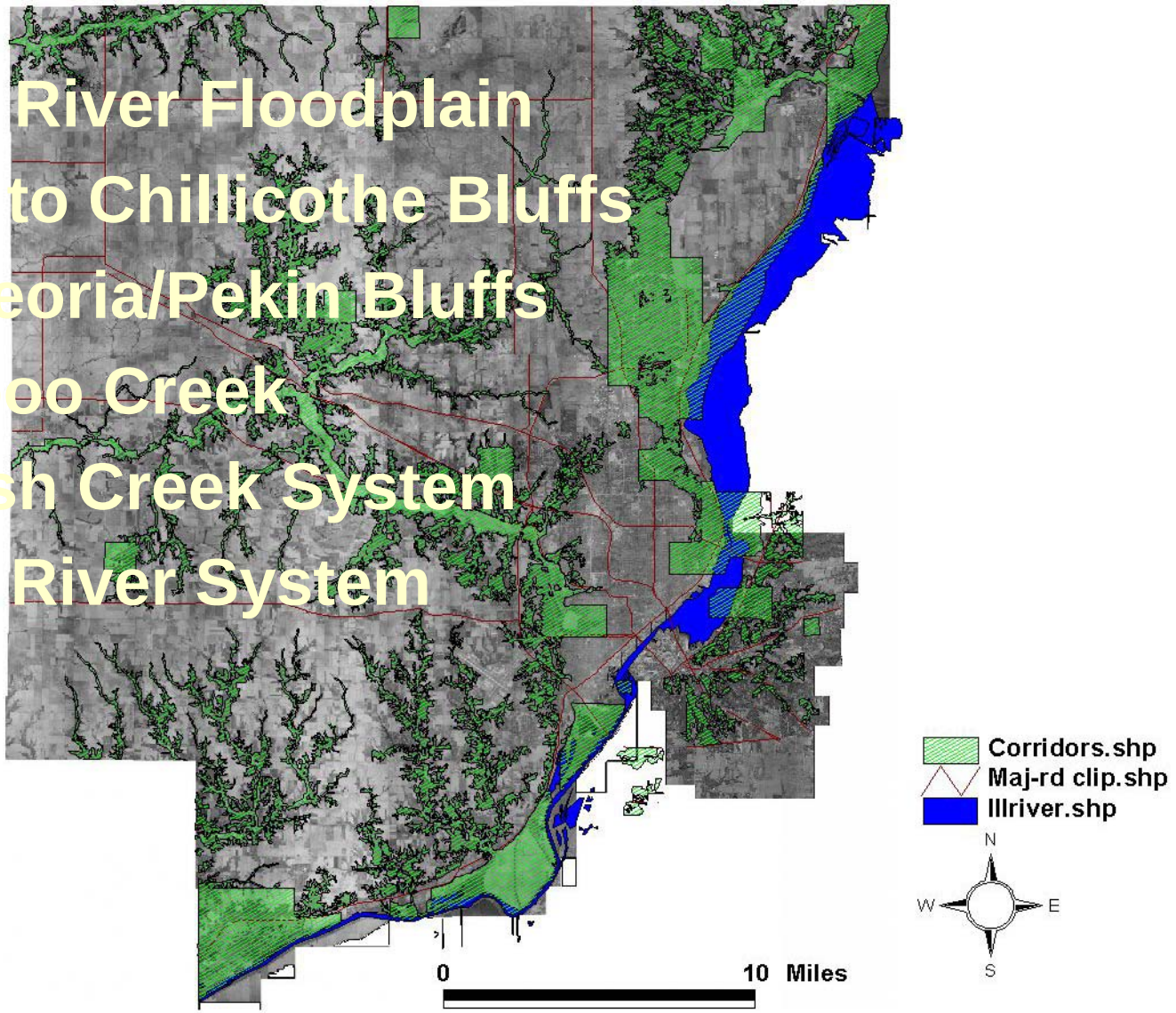
Environmental Groups:
Peoria Audubon Society
Trees Forever
Tri-County Riverfront Action Forum
HOI Sierra Club



Environmental Corridor Study Area

Environmental Corridors

- Illinois River Floodplain
- Peoria to Chillicothe Bluffs
- East Peoria/Pekin Bluffs
- Kickapoo Creek
- LaMarsh Creek System
- Spoon River System



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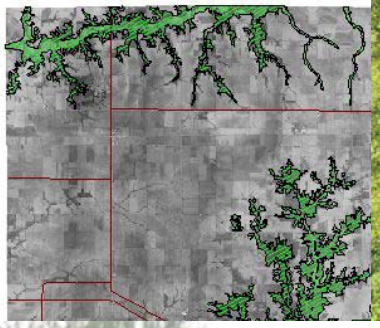

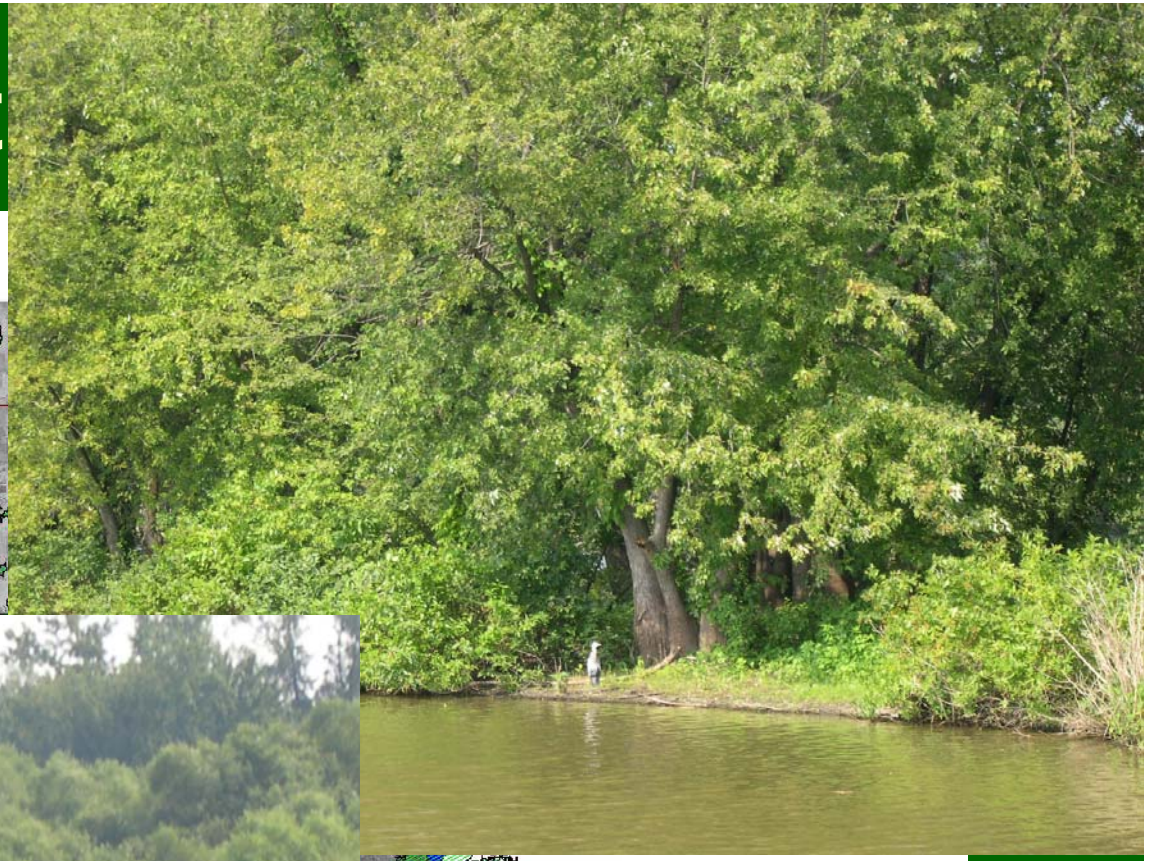

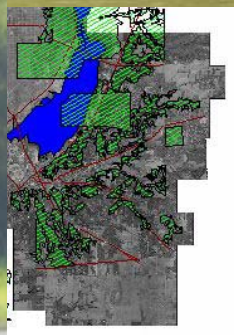

Corridors.shp
Maj-rd clip.shp
Illriver.shp

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W
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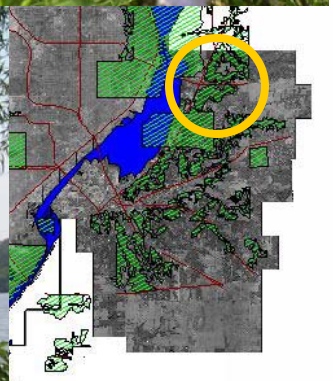
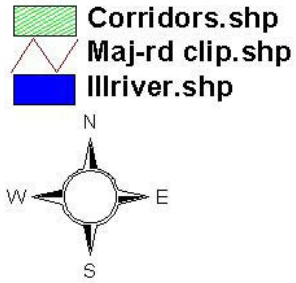
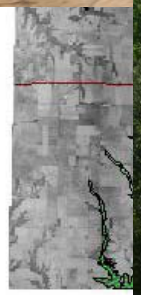
10 Miles





10 Miles



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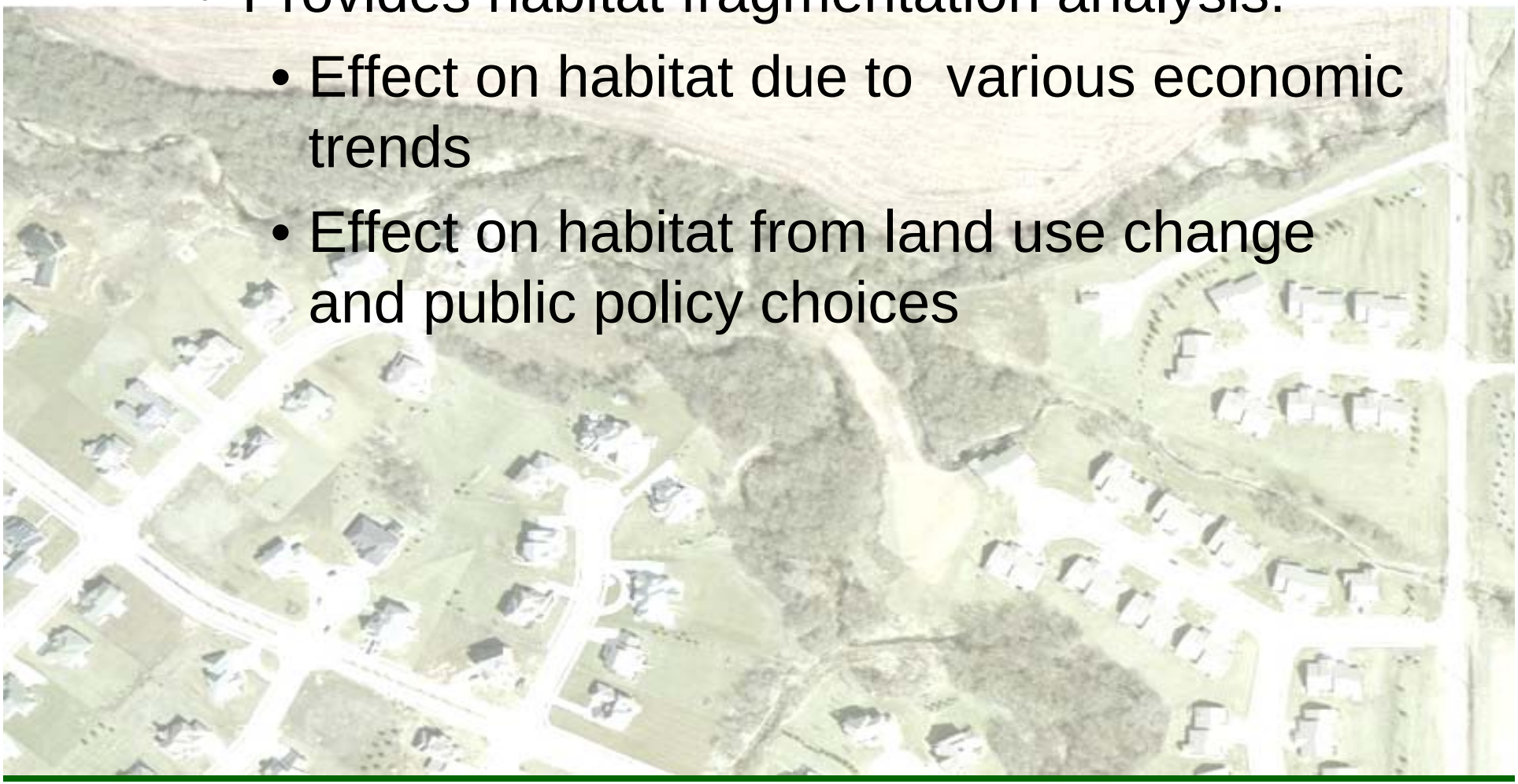
UIUC- Habitat Fragmentation Model

- Identifies habitat required for certain species
- Provides habitat fragmentation analysis:
  - Effect on habitat due to various economic trends
  - Effect on habitat from land use change and public policy choices



Model Scenarios

- Business as usual (baseline economy/policies- no change)
- Economic Growth- 20% Gross Regional Product
- Economic Decline- loss of 15,000 jobs
- High Growth Contained- FPA (sewer service)
- High Growth Redirected- Ag. Preservation
- High Growth with Bluff Protection

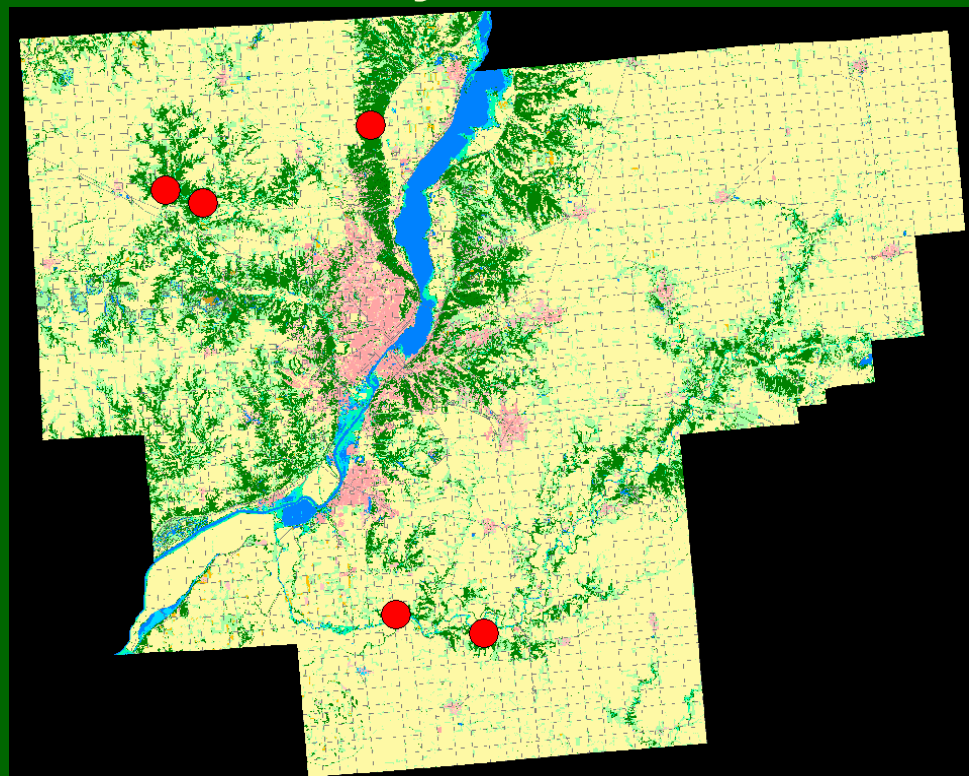
Species for Model

- **Bobcat (Canary in the Coal Mine)**
- **Wood Thrush**

The Bobcat in Peoria

- **Bobcat is a habitat generalist, not critically affected by fragmentation**

- **Bobcats are present in Peoria county**
  - **3 recorded sightings**
  - **Medium abundance**



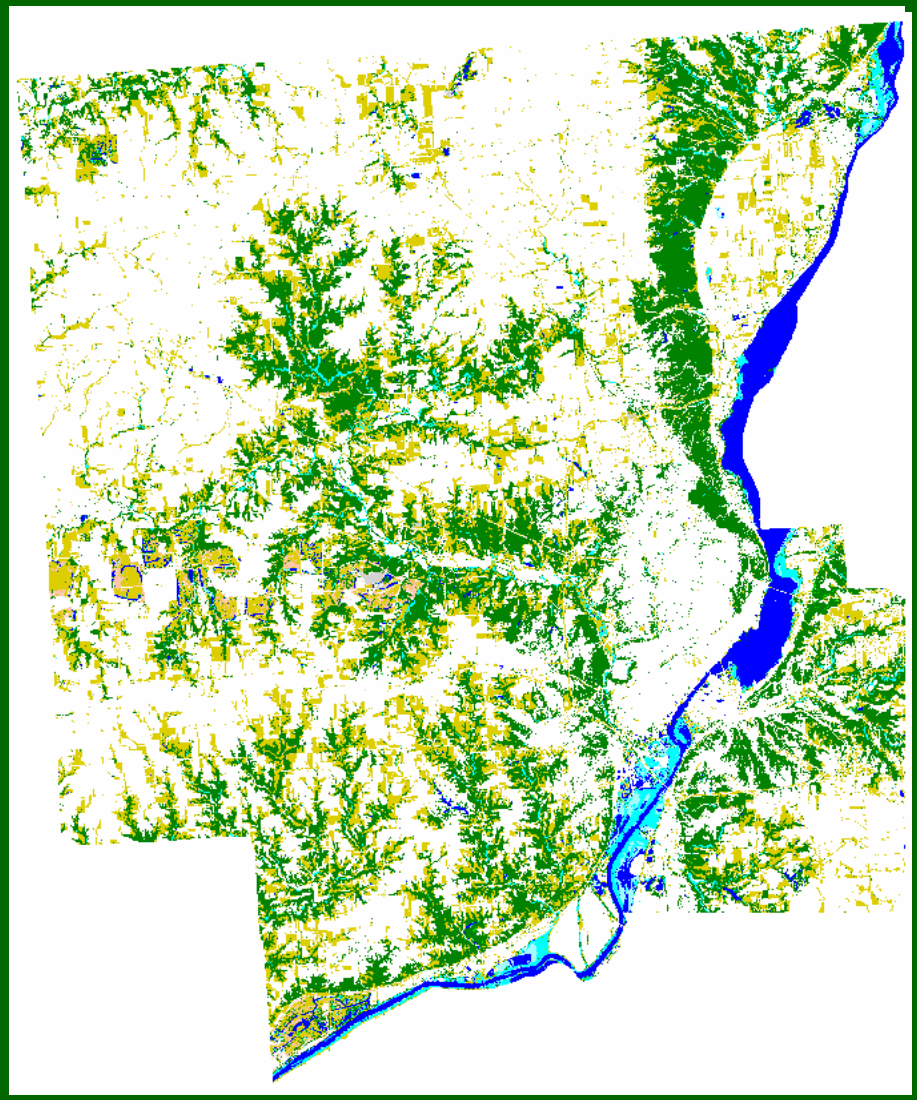
Bobcat Habitat

Essential habitat:

- Forest
- shrubland

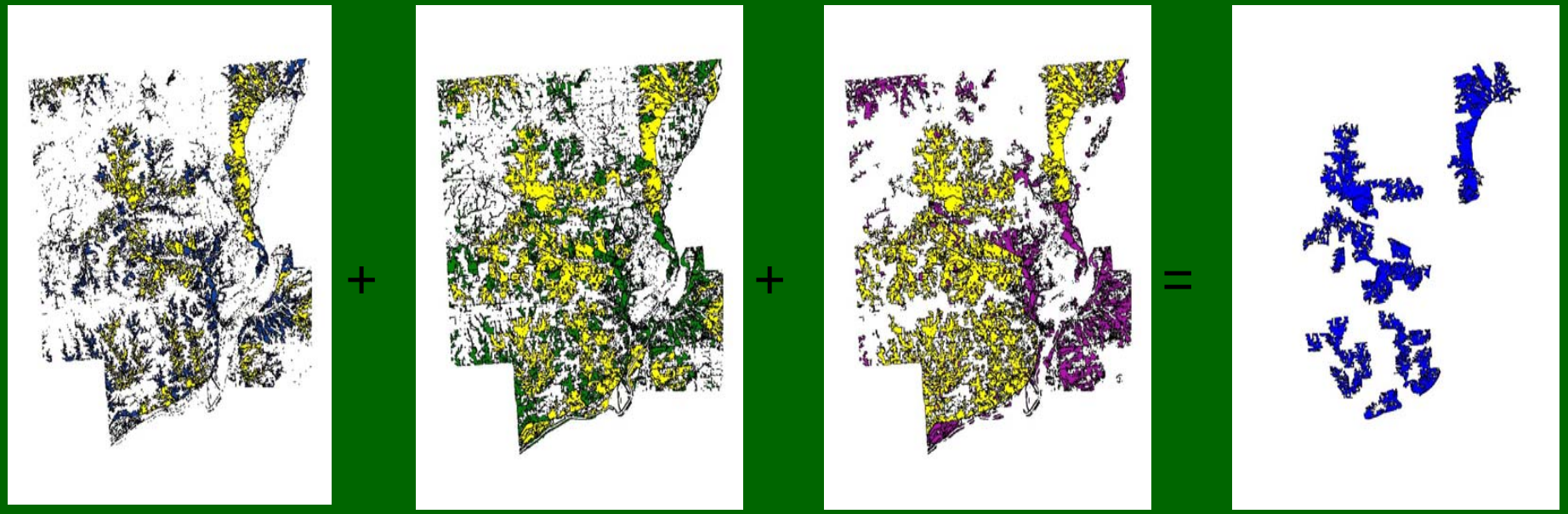
Hunting habitat:

- bare rock
- transitional
- orchards
- grassland
- pasture
- Wetlands

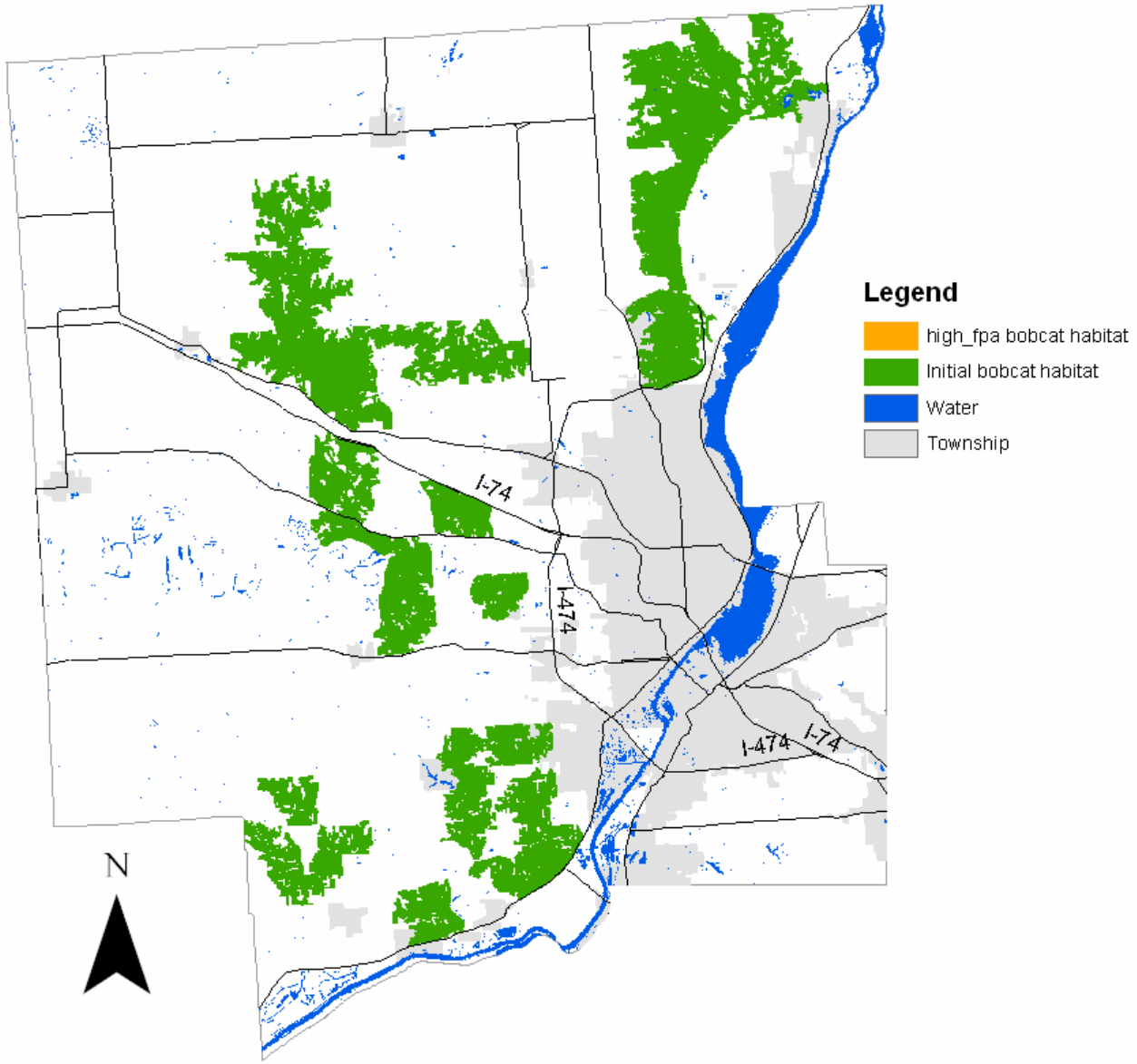


Approach

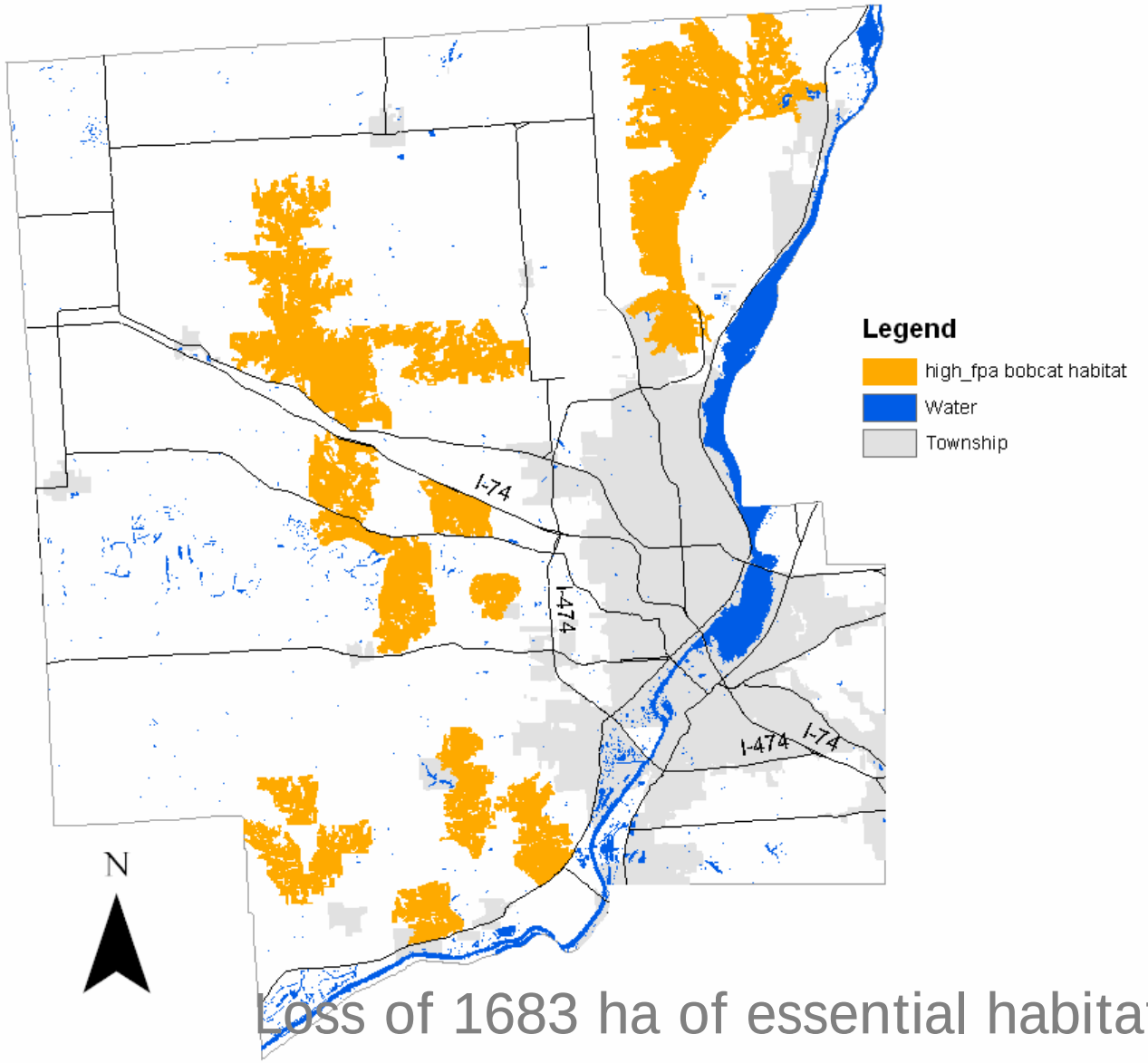
- Combining the 3 themes that define bobcat habitat:
  - Forest: > 1.89 km^2 (high 2.7, low 1.26)
  - Core habitat > 2.4 km^2 (high 3.2, low 1.8)
  - Home range > 16 km^2 (high 18.2 low 14.8)



Current Bobcat Habitat

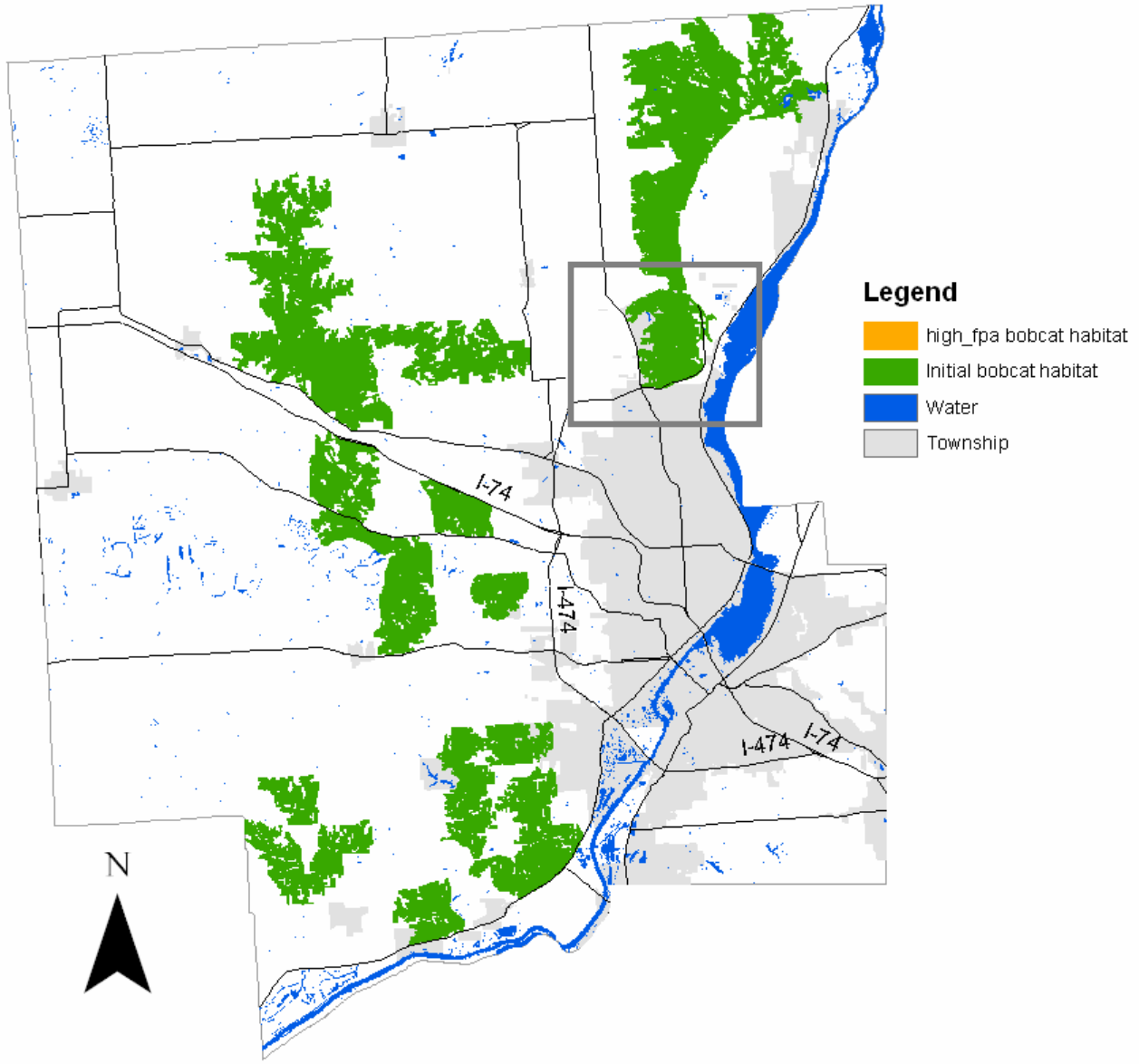


Future Habitat (FPA scenario)

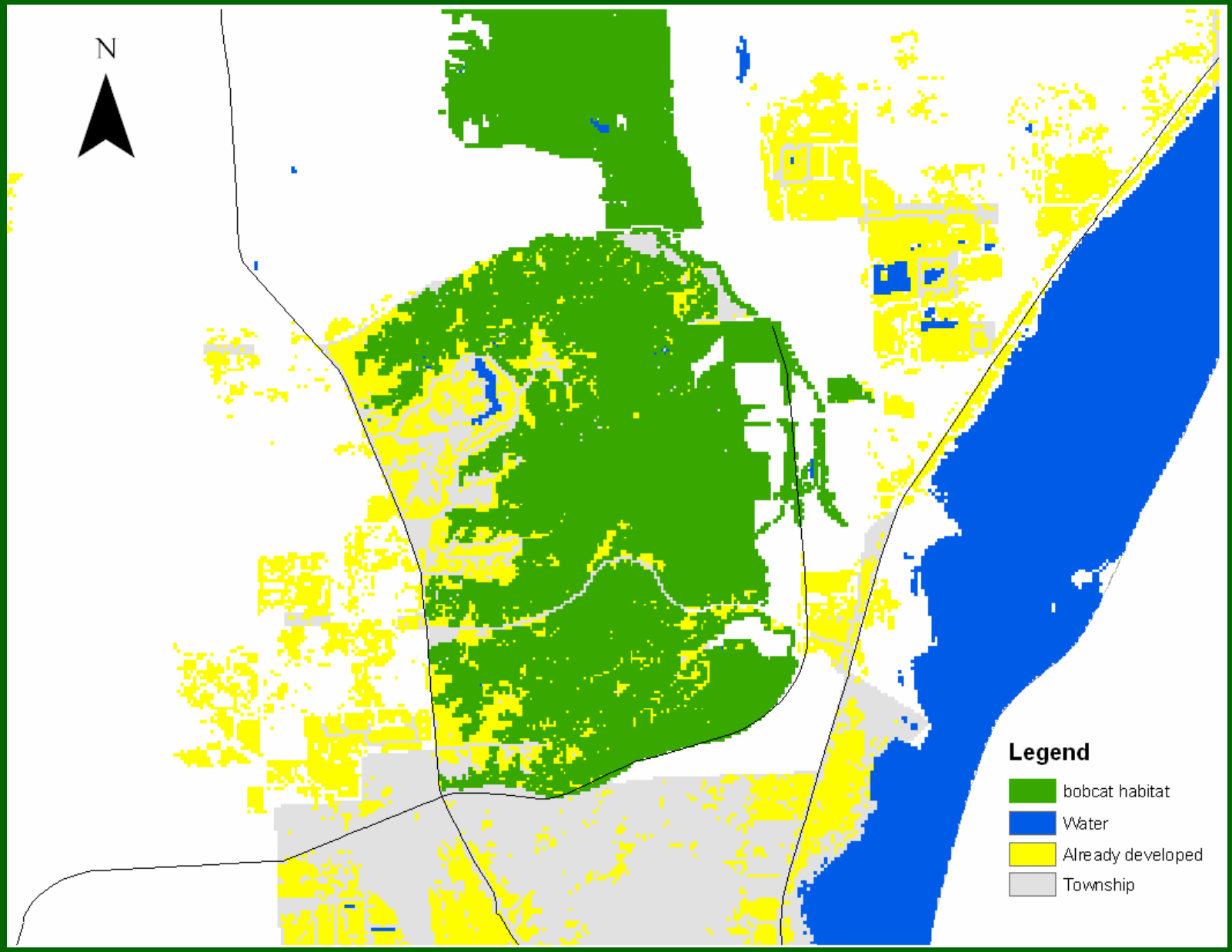


Loss of 1683 ha of essential habitat

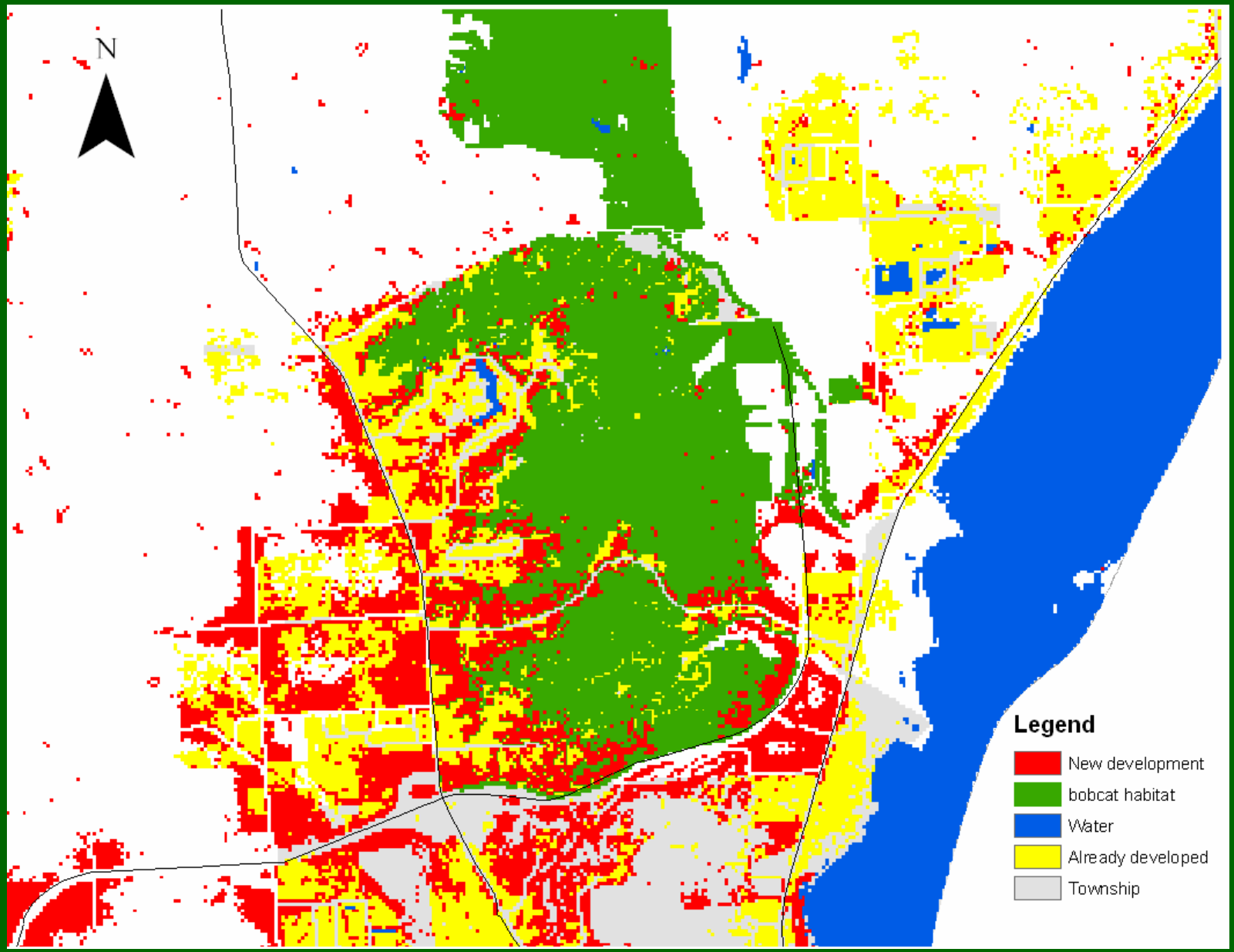
Result in Detail



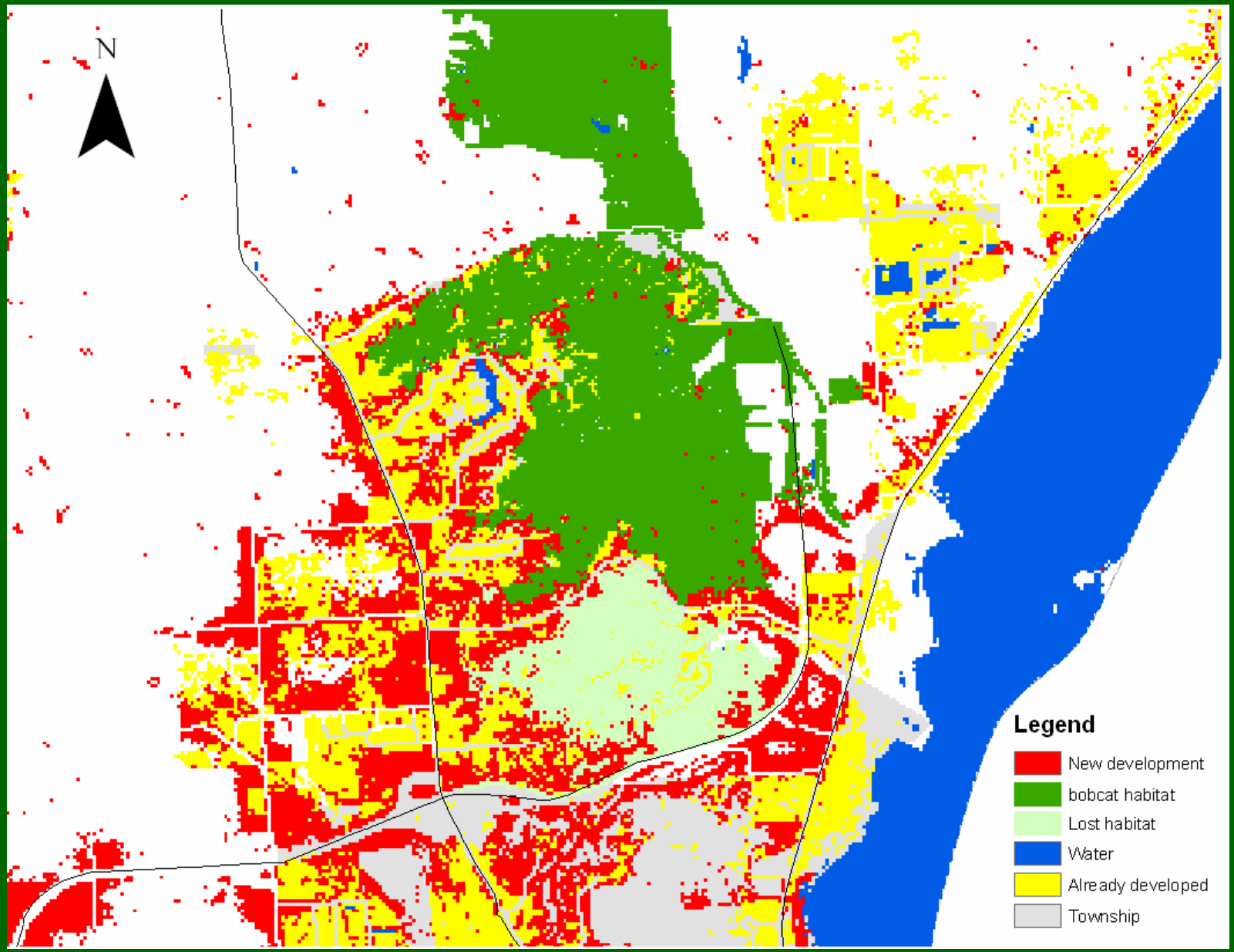
Result in Detail



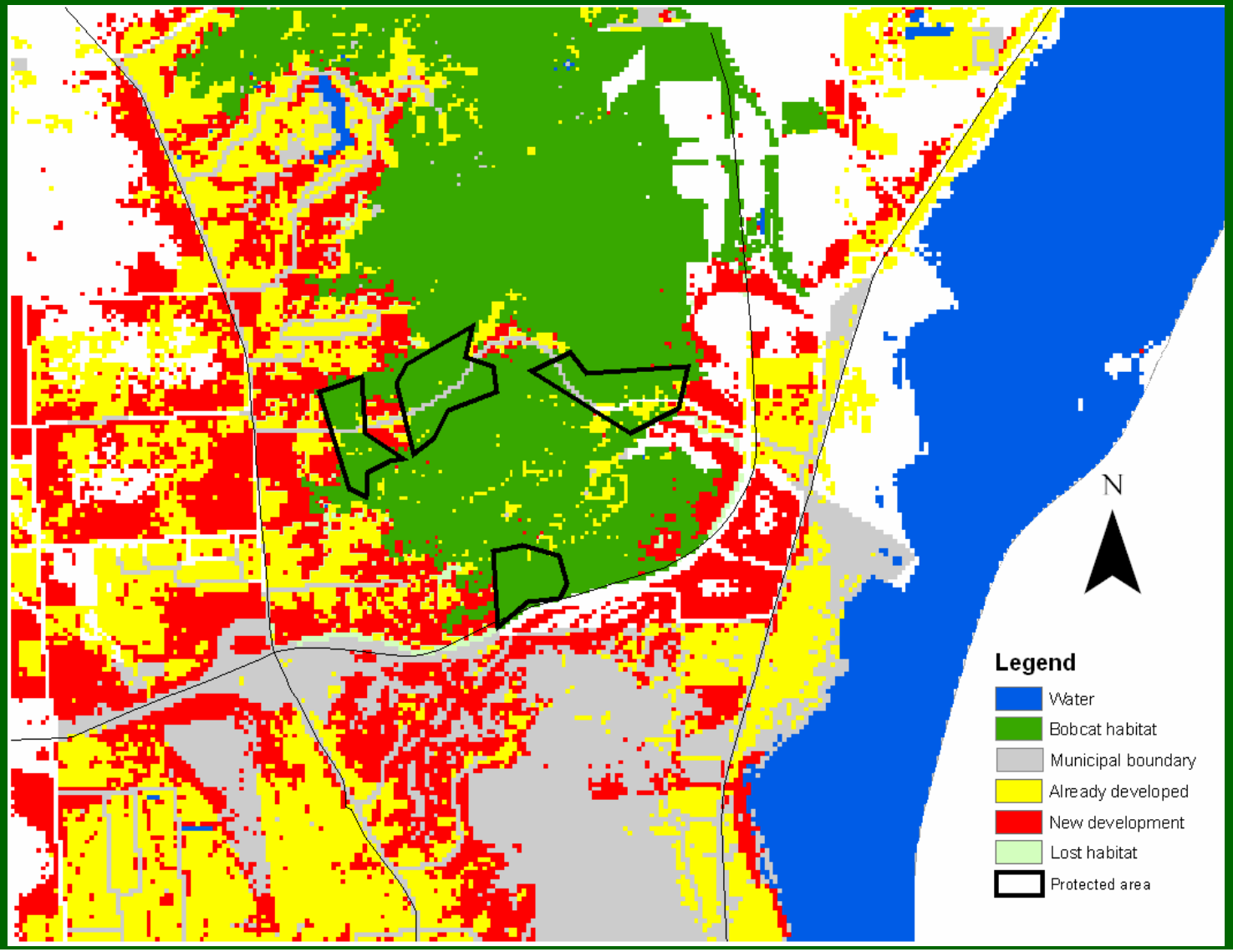
Result in Detail



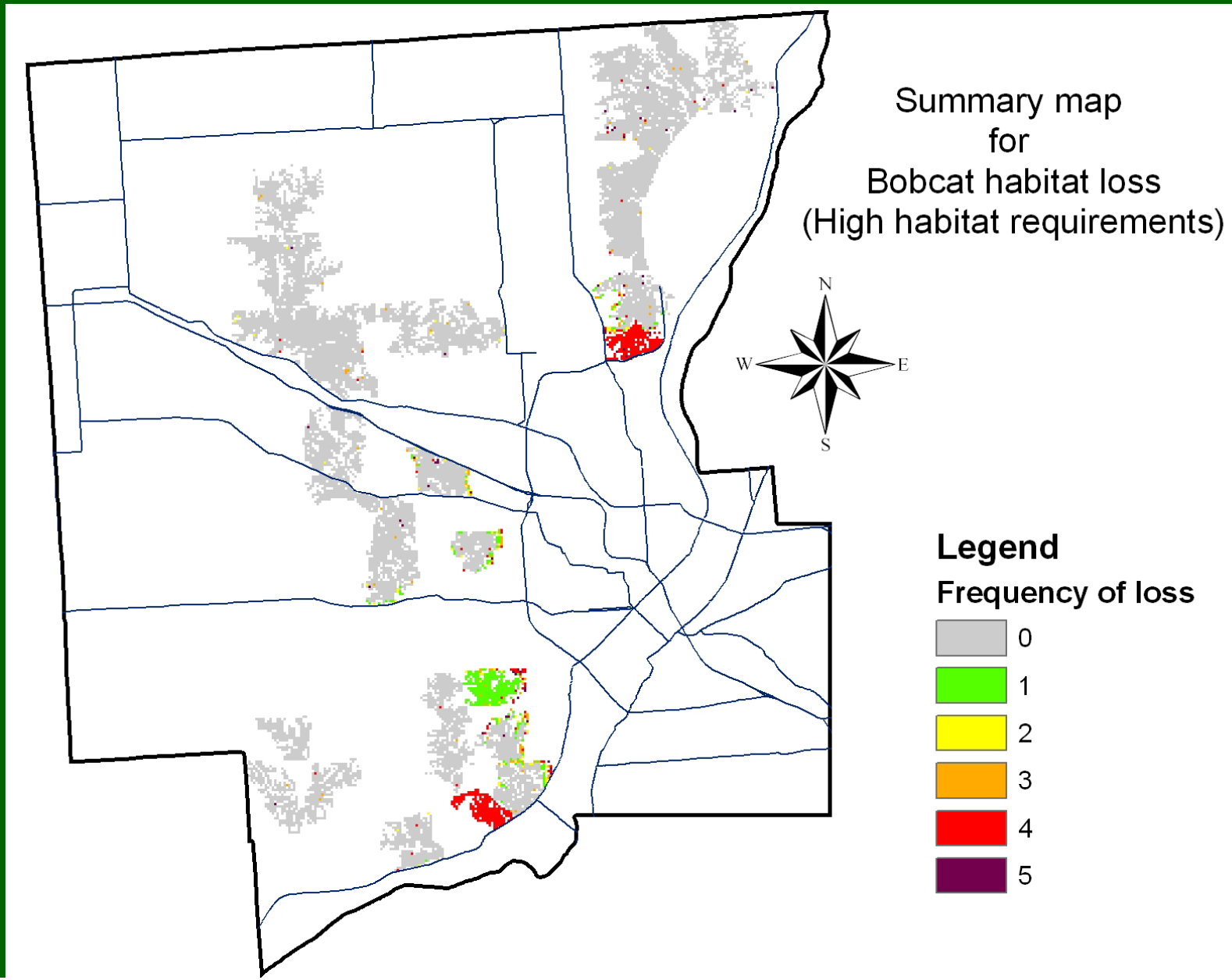
Result in Detail

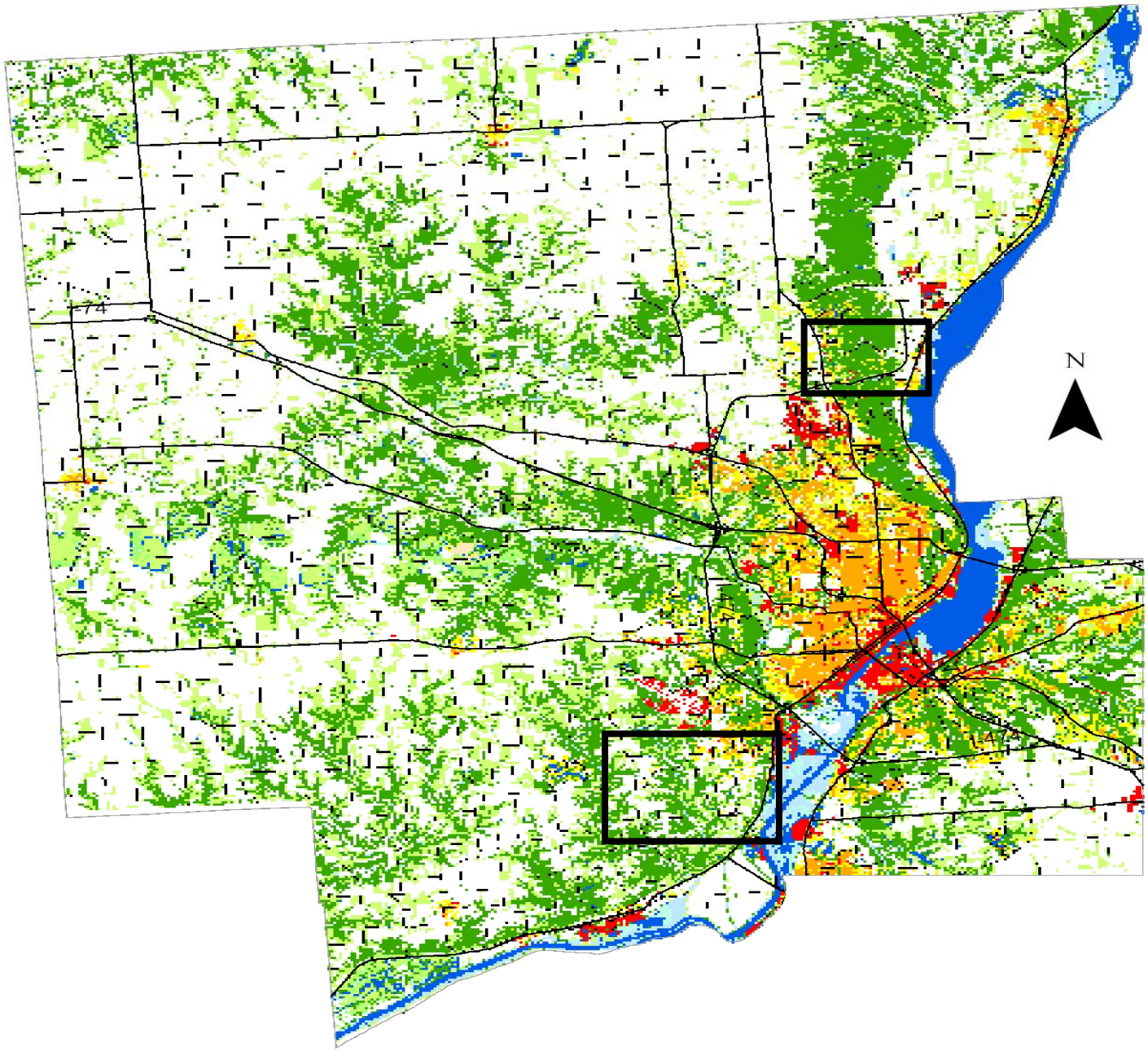


Habitat Protection-Sustainable Development



Threatened Areas

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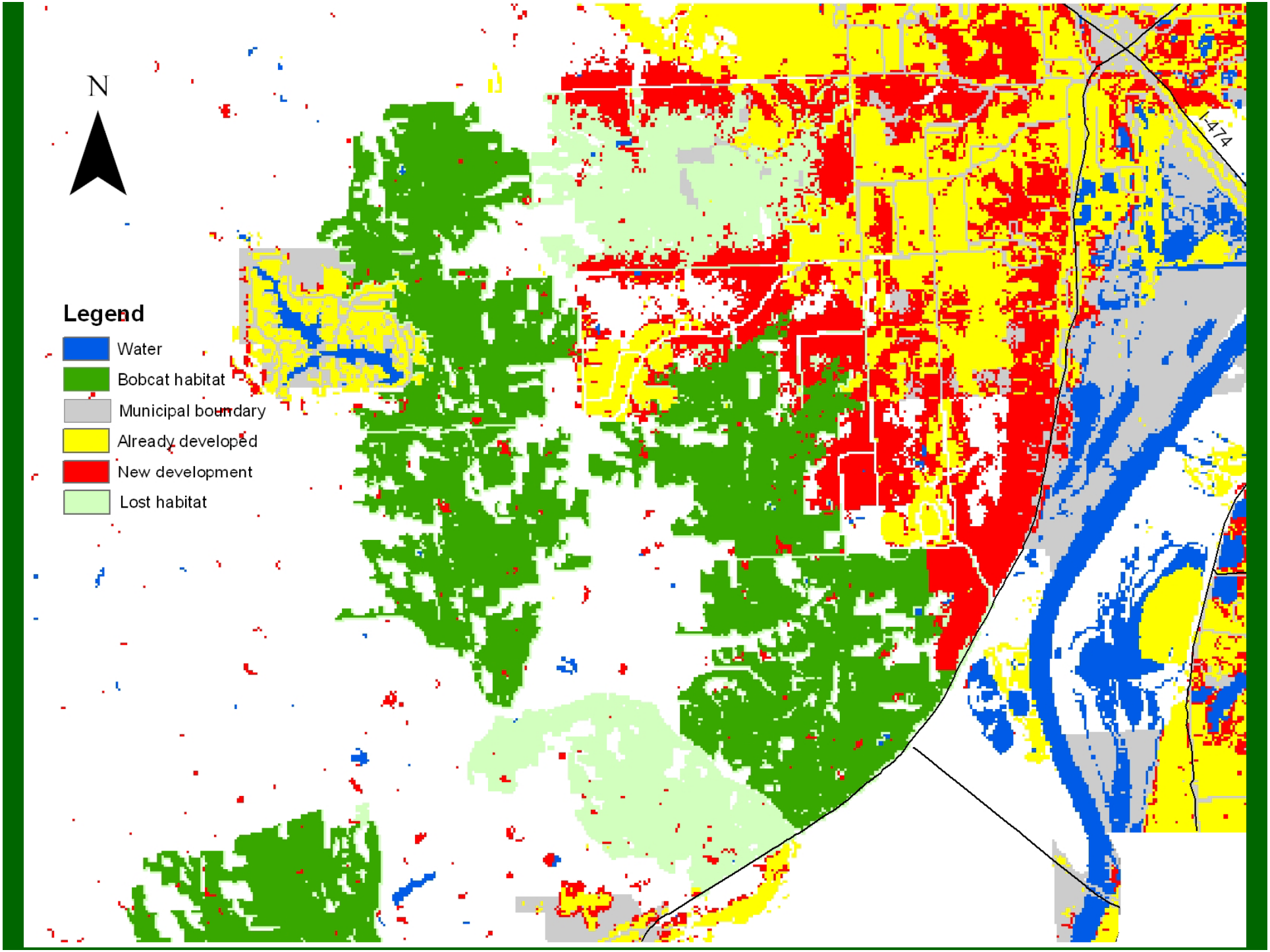
N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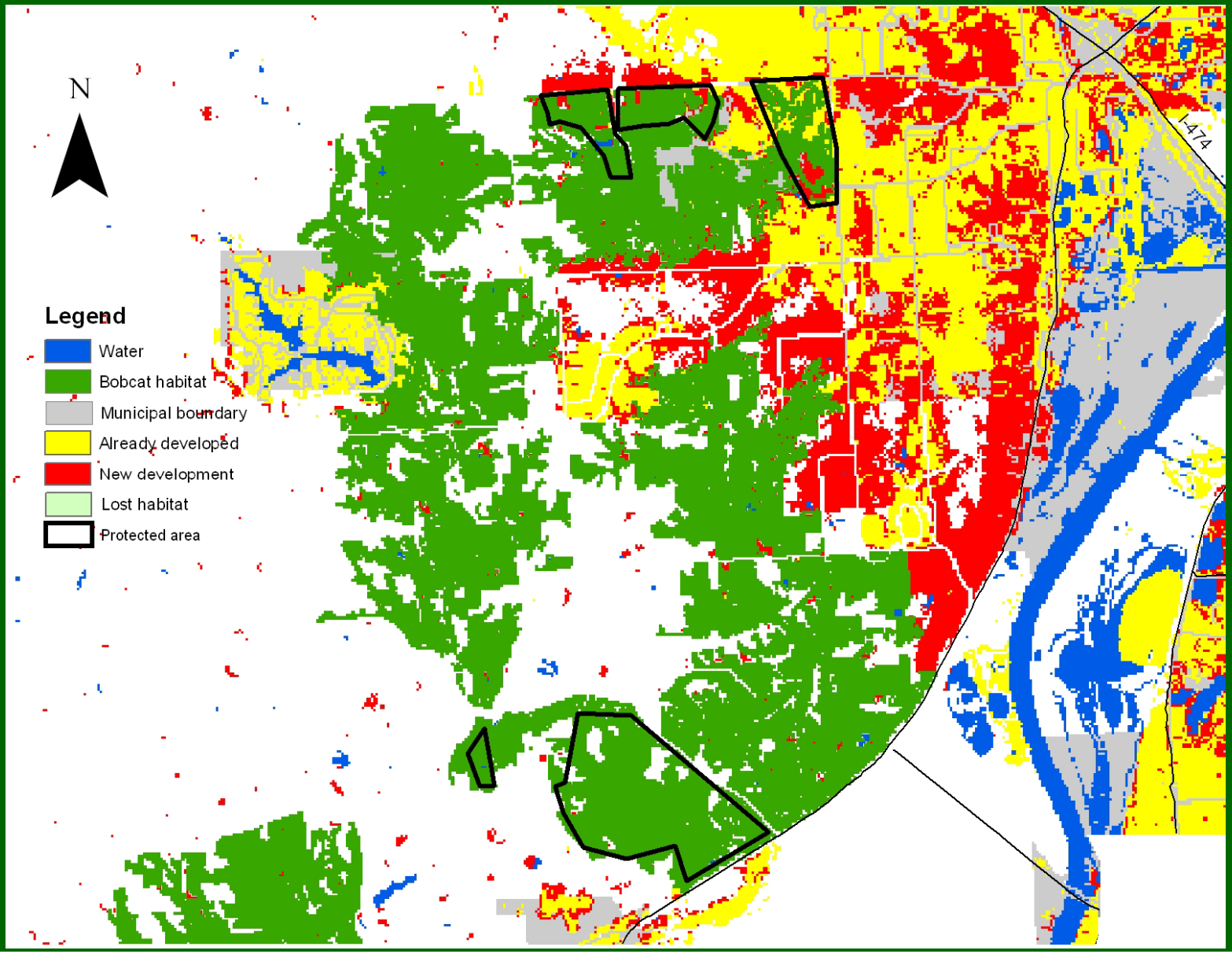
Legend
Water
Bobcat habitat
Municipal boundary
Already developed
New development
Lost habitat
I-474

Habitat Protection/Sustainable Development



Tier Development & Stats

Tier 1:

- Area: 71,839.55 acres
- Parcels: 8,459
- Land Use: mostly R1, in addition: A1, A2, C1 & C2 (few parcels), I1, I2, R1 & RR
- Parcels with 50% of Tier 1 coverage or more:

Tiers Stats

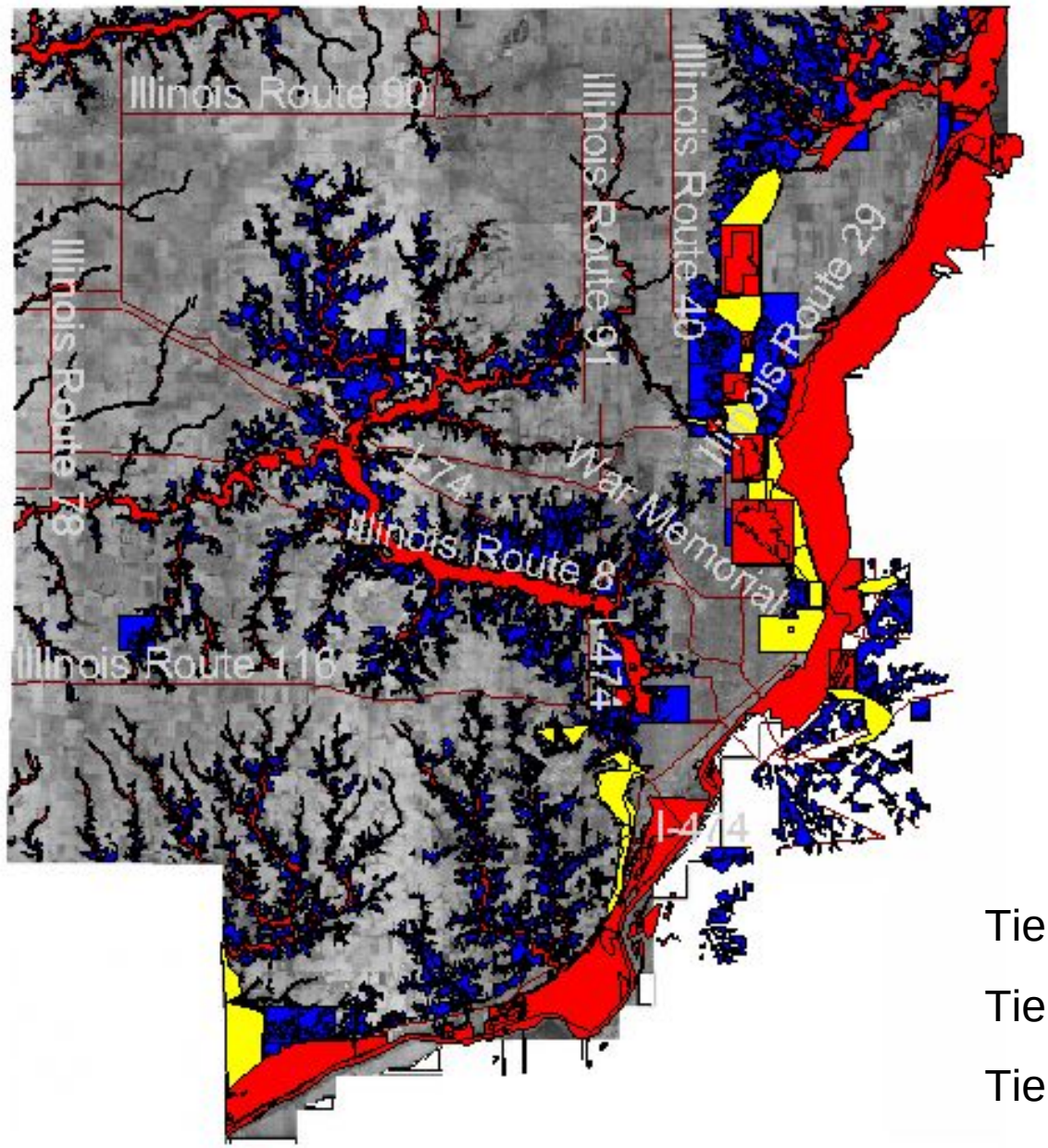
Tier 2:

- Area: 10,517.05 acres
- Parcels: 5,049
- Land Use: Mostly A2 & R2, in addition: A1, C2 (only 1 parcel), I2 (2 parcels), R1 & RR

Tiers Stats

Tier 3:

- Area: 63,413.09 acres
- Parcels: 21,566
- Land Use: the majority is A2 & R2; in addition to A1, R1, few parcels in C1, C2, I1, I2, RR & 17 parcels in R3



Tier Map

Tier 1 = Red

Tier 2= Yellow

Tier 3= Blue

Land Categories & Initial Recommendations

- 1st Tier:

  Open Space by INAI sites and on floodplain

  – Remain in natural state: Conservation Easements, Land & Water Reserves, Open Space County Ordinances

- 2nd Tier:

  Areas linking above hubs, allowing connectivity

  – Recommendations:
    - Large Lot Development
    - Conservation Development
    - Natural Drainage

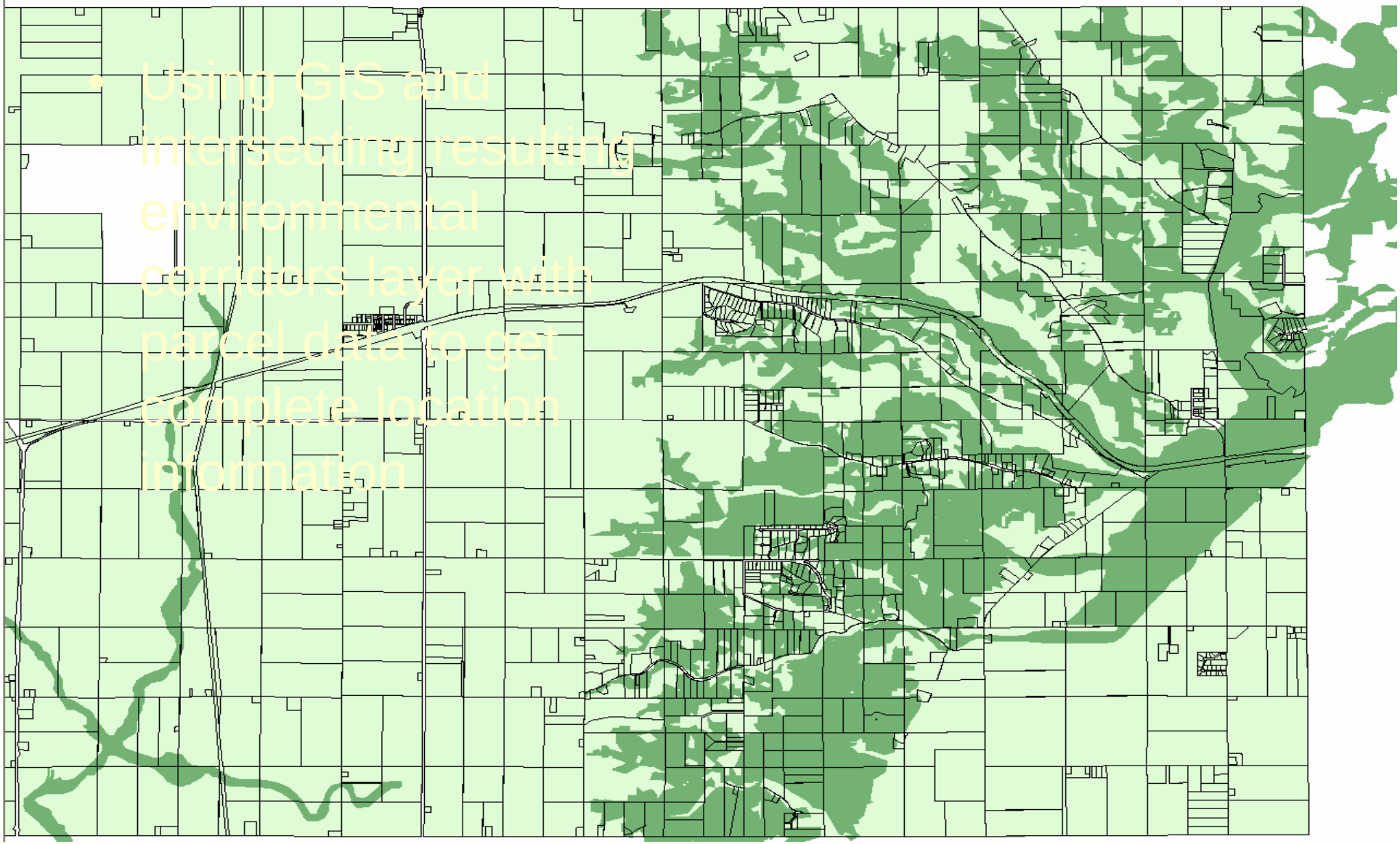
Land Categories & Recommendations

- 3rd Tier:

  Sites in environmental corridors zoned or planned for development

  – Recommendations:
    - Stormwater Detention
    - Natural Landscaping
    - Floodplain Protection
    - Topsoil Protection

Location Information



- Using GIS and intersecting resulting environmental corridors layer with parcel data to get complete location information

Deliverables & Next Phase

- Educational map of the Environmental Corridors + Website
  - www.tricountyrpc.org/environmental/corridor.htm
- Land Use Guidelines
- Local Legacy Plan- Corridor Expansion
- Peoria County Environmental Corridor Ordinance- Transforming Tier Recommendations into formalized ordinance